Why Eat Acorns?

"In 1942, a 27 in scarlet oak produced approximately 46000 acorns ...." Yearbook of Agriculture, 1949

"To Seek Freedom is the only driving force I know: Freedom to fly off into that infinity out there, freedom to dissolve, to lift off, to be like a candle which in spite of being up against the light of a billion stars remains intact, because it never pretended to be more than it was: a candle." Don Juan Matus from Carlos Casteneda's The Art of Dreaming

Photograph by H. W. Henshaw, from C. Hart Merriam

INDIAN WOMAN POUNDING ACORNS AT AGUA CALIENTA, IN WARNER VALLEY, SOUTHERN CALIFORNIA

Note the elevated rim of partly ground acorn meats surrounding the mortar hole

Happy age to which the ancients gave the name of golden. . . None found it needful, in order to obtain sustenance, to resort to other labor than to stretch out his hand and take it from the sturdy live-oak, which liberally invited him.

Don Quixote.

"That such a food of genuine worth should be disregarded by our people is one of the many illustrations of the reluctance of the white man to avail himself of the sources of subsistence long utilized by the aboriginies... We seem to prefer crops that require laborious preparation of the soil, followed by costly planting and cultivation, rather than those provided without price by bountiful nature" C. Hart Merriam, former Chief of the U.S. Biological Survey as cited in National Geographic 34(2): pg 136; 1918

Gobbler Sawtooth Oak *(Quercus acutissima)* - Very bitter but a reliable producer; produces at 6 years old. Small to medium acorn. *Quercus variabilis* is almost identical but hardier.

variable. Every now and then you find a really good tree. Like all acorns, best to let ripen two weeks after harvesting.

Chestnutleaf Oak *(Quercus castanaefolia)* — Very similar to the turkey oak; bigger acorns than the turkey but just as bitter. Fantastic productivity.

Turkey Oak *(Quercus cerris)* — A great producer of large acorns. Bitter. Ripens late. Vigorous seedlings. Takes 5 to 8 years to fruit from seed.

Gambel Oak *(Quercus gambelii)* — Not too bad, but don't throw away your roasted cashews! Some individual trees are quite sweet. Small acorn but can be very productive in a good year. Susceptible to weevil damage.

Comptons Oak *(Quercus lyrata x virginiana)* — The best species we've found yet. Tasty and crunchy, with very little bitterness. Native to Georgia. Has survived in Zone 6 with no problems to date. Productivity unknown—needs further testing.

Holly Oak *(Quercus ilex)* — Probably the best introduced species. Fairly large acorn, with only a little bitterness. Late ripening. Was processed for its oil at one time.

Bur Oak *(Quercus macrocarpa)* — Individuals vary, but still lower tannin than most northern species. In Michigan, we have found a few with very good qualities.

Bebbs Oak *(Quercus macrocarpa x alba)* — Variable in sweetness between individuals, but generally pretty good. Good productivity and reliable year after year.

Schuettes Oak *(Quercus macrocarpa x bicolor)* — Excellent productivity. Fairly sweet. Some have a little bitterness but are still palatable. Can suffer weevil damage in some years. The best breeding line to follow along with *Quercus prinoides* and hybrids.

Burgambel Oak *(Quercus macrocarpa x gambelli)* — Very productive. Likely to be sweeter than Schuettes Oak above. Some individuals are very sweet. Medium to large acorn.

Burenglish Oak *(Quercus macrocarpa x robur)* — Extremely productive. Astringent, but some individuals are better than others. Worthwhile just for its productivity and the large acorns. A good timber hybrid, longer lived than pure English Oak.

Chinkapin Oak *(Quercus muehlenbergii)* — Fairly bitter. Small to medium acorn. Medium productivity. Variable from year to year. High oil content.

Red Oak *(Quercus rubra)* — Very bitter. The same goes for almost all of the black oak group. Variable productivity, but occasionally cranks out a bumper crop.

Photograph by C. Hart Merriam

INDIAN WOMAN OF THE CHUKCHANSY TRIBE, NEAR FRESNO FLAT, CALIFORNIA, SHUCKING ACORNS

Note the newly gathered acorns of the black oak in the carrying basket, the flat stone upon which the acorn is poised, and the small stone in the right hand with which it is split. The picture shows also one of the flat, circular winnowing baskets in which the acorn meal is agitated to separate the fine from the coarse, and a bowl-shaped basket in which the acorn mush is cooked. The work is done in a small opening in the manzanita bushes adjacent to the Indian's home.

TABLE 3. NUTRITION DATA ON ACORN MEATS

Species	% Dry Basis Prot.	Fat	Carb.	Fiber	Ash	% Tannin	Cal./ 100 gm
Q. alba[1]	6.3	6.3	83.2	2.5	2.6	5.6	221
white oak[2]	6.3	6.8	82.6	1.8	2.6	4.4	255
Q. prinus[1]	6.9	5.1	83.2	2.6	2.2	10.4	—
chestnut oak[2]	8.5	4.6	82.2	2.5	2.3	7.8	—
Q. macrocarpa[3] bur oak	8.0	7.9	80.9		2.9	?	—
Q. rubra[1]	6.6	20.8	61.8	3.1	2.4	9.8	299
red oak[2]	6.1	22.5	66.4	2.4	2.6	7.4	328

[1] Wainio and Forbes 1941
[2] Korstian 1927
[3] Lund and Sandstrom 1943

LEACHING METHODS

Parching or roasting only: Shasta (Dixon 1907, p. 426); Pima and Navajo (Castetter 1935, p. 47); Upper Missouri tribes (Denig 1929, p. 583).

Immersion or burial, with or without shell, occasionally accompanied by boiling or roasting: Pomo, Yuki, Yurok, Hupa, Shasta (Gifford 1936, p. 87).

Mixing with ferruginous earth: Pomo (Gifford 1936, p. 93).

Parching or roasting and boiling: Menomini (Smith 1923, p. 66).

Soaking in fresh water, in sandy depressions, basins, baskets, or pots: Cahuilla (Castetter 1935, p. 48); Choctaw, Creek, Shawnee (Driver 1952, p. 59); Mono, Maidu, Pomo, Hupa, Yurok (Gifford 1936, p. 89).

Boiling only, in fresh water, in pots or baskets: Navajo and Isleta (Castetter 1935, p. 47); Huron (Gifford 1936, p. 92); Kamia, Eastern Mono, Pomo, Yuki, Maidu, Hupa, Yurok, Shasta, Western Mono (Gifford 1936, pp. 89-90).

Soaking in ash-treated water: Meskwaki (Smith 1928, p. 257); Dakota, Winnebago, Pawnee, Omaha-Ponca (Gilmore 1919, p. 75).

Boiling in ash-treated water: Iroquois (Gifford 1936, p. 91); Ojibwa (Smith 1932, pp. 401-402); Chippewa (Stowe 1940, p. 11; Gilmore 1933, p. 129; Densmore 1928, p. 292).

Photograph by C. Hart Merriam

ANOTHER TYPE OF LEACH, MADE BY THE WUKSACHE INDIANS OF ESHOM VALLEY

This leach consists largely of sand placed on a bed of dry, dead leaves and twigs supported on a square framework of poles. The looped stick resting against the leach is used for stirring the hot stones in the basket while the cooking is going on.

New Way Acorn

From: It Will Live Forever; Traditional Yosemite Indian Acorn Preperation by Julia F. Parker

Cracking

Crack 4 pounds of acorn with a hammer. When cracking, tap shell lightly enough that the nutmeats will split into halves or thirds, but won't shatter into small pieces.

Shelling

Remove shells by hand, returning shells and any bad nuts to the earth.

Cleaning

To loosen skins, lay acorn on a cloth on a table in the sun.
Split grooves open by pressing down with the sharp edge of a knife held lengthwise in the groove.
Sprinkle the acorns with water and allow to dry.
Rub handsfuls of nutmeats between hands to remove the skins.
Scrape any adhering skins off with a knife.
Taking bad nuts into account, 4 pounds result in about 4 cups of whole, cleaned acorns.

Blender crushing

Measure out 4 cupfuls of whole, cleaned nutmeats.
Put 1 cupful (5.5 oz.) in a blender and break up at low speed. The acorn will jump all around in the blender.
Once the nutmeats are broken up, switch the blender to high speed and run until more acorn fall from the edges onto the blades.
Mix acorn up with the handle of a wooden spoon, making sure to include the acorn nearest the bottom, which tends to get sticky.
Repeate blending and mixing until acorn is reduced to fine flour. (If acorn gets oily as blended, add a few whole acorns at slow speed to absorb the oils.)
Remove the now fluffy flour and set aside in a bowl.
Add second cupful and repeat process.
Add third cupful and repeat. Add fourth cupful and repeat.
This results in 5 fluffy cupfuls of flour.

Photograph by C. Hart Merriam

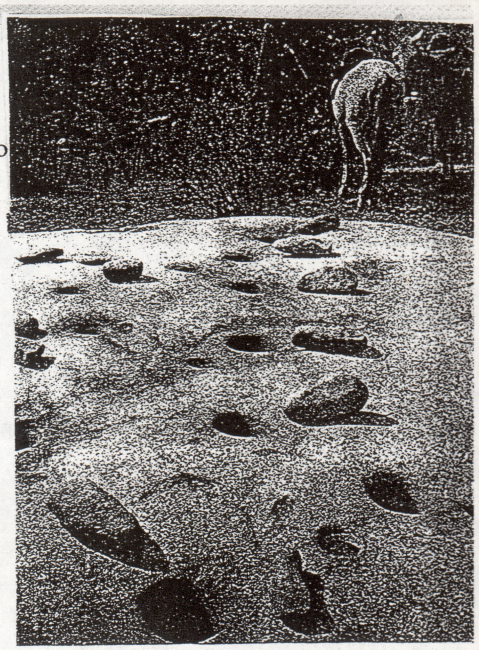
ACORN CACHES IN YOSEMITE VALLEY

The outer covering is of branches of fir, cedar, and pine, closely appressed, with the tips irected downward to keep out the rain and the native rats, mice, and squirrels. The interior ning is mainly of the long, slender branches of *Hosakia* or *Lotus*.

Comparative Analyses (National Geographic 34(2): pg 136; 1918)

Acorn

	Corn Meal	Wheat Flour	Leached	Unleached
Water	12.5	11.5	11.34	5.82
Ash	1.0	.5	.29	1.90
Fat	1.9	1.0	19.81	25.31
Protein	9.2	11.4	4.48	5.41
Carbohydrate	74.4	75.4	62.02	59.62
Fiber	1.0	.2	2.06	1.91



Photograph by C. Hart Merriam

ANCIENT ACORN MORTAR HOLES AND PESTLES IN SOLID GRANITE, NEAR KAWEAH RIVER, CALIFORNIA

These ancient grinding mills in hard granite rock are common on the middle and lower slopes of the Sierra Nevada of California and some of them have as many as 20 or 30 mortar holes. The pestles are large and heavy with smoothly rounded striking ends and are held in both hands; the *modus operandi* is illustrated on pages 131 and 132. When pounding the acorns, several women usually work together, sitting at neighboring holes and singing in rhythm with the strokes of the pestles.

Maggie Howard (ca. 1870–1947) peers out of an unfinished acorn granary she is building in Yosemite Valley, November 1935. After being filled with acorn, such granaries were animal-proofed with a shingle-style thatch of fir, cedar, or pine branches. Photo by Ralph Anderson, YNPRL-2044.

Note

If there are chunks of acorn in the flour, it needs to be run through the blender again. Don't put more than a cup of acorn in the blender at a time - any more may cause the blender to burn out.

Leaching

Put flour into a 5-pound flour os similar cloth sack. Fill the sack full of water and allow it to drain so the flour is saturated.
Tie the sack to a faucet on just past a drip, so that a very slow, steady stream of water drips over the outside of the sack (which serves as a waterbreak) all night long.

Cooking

Place leached acorn (when wet, it reduces again to 4 cups) in a stainless steel pot.
Add 3 cups of water and mix with acorn.
Cook at high heat, stirring frequently. While acorn cooks, gradually addd 7 more cups of water.
Keep stirring.
Let the acorn boil for 15 mins, until it has the consistancy of tomato soup. For corn meal mush consistancy, add less water.
Makes 11.5 cups of nuppa (mush).
If using fresh (newly gathered) acorn, increase the amount of water [illegible]

Photograph by H. W. Henshaw, from C. Hart Merriam

DIGENO INDIAN WOMAN POUNDING ACORNS AT SANTA ISABEL, SOUTHERN CALIFORNIA

ACORN BOOKS

It Will Live Forever: Traditional Yosemite Indian Acorn Preparation
Beverly Ortiz as told by Julia F. Parker
Paperback, 148 pages
Heyday Books: 1996 (2nd revised edition)

Ooti: A Maidu Legend
By Richard Simpson
Celestial Arts (1977)

Acorns and Eat'em: A How-to Vegetarian Cookbook
by Suellen Ocean
Contains complete acorn leaching instructions, nutritional information, and 35 acorn recipes. Self-published by Willits, California author Sue Ellen Ocean, this charming and instructive book explains how to harvest, prepare and cook acorns. The book is full of interesting recipes, acorn lore, and oak identification information.
Paperback $13.00
Ocean-Hose (530) 559-1927
P.O. Box 115, Grass Valley, CA 95945

Works Cited

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Sweet Acron Oaks – Can you really eat an acorn & enjoy it? Ken Asmus, Useful Plants for Permaculture, Jun 1996 pg 27

Trees & Food From Acorns; Albert A. Downs, Yearbook of Agriculture, 1949, pp 571 – 572